

Application

This range of heavy duty submersible drainage pumps US 73 HE/HES and US 103 HE/HES is particularly suitable for dealing with very contaminated water and capable of handling up to 30 mm particle size without stones.

These pumps have been specially designed for pumping **hot water up to 194 °F (90°C)** from washing machines, laundries and industrial/commercial effluent and to drain emergency over flow for control heating systems.

This range of pumps is suitable for stationary and portable use. For sumps there is a guide rail system GR 40 available, which provides an easy removal for routine maintenance and inspection.

A controllable oil chamber and a wear-resistant special mechanical seal ensure a long service life.

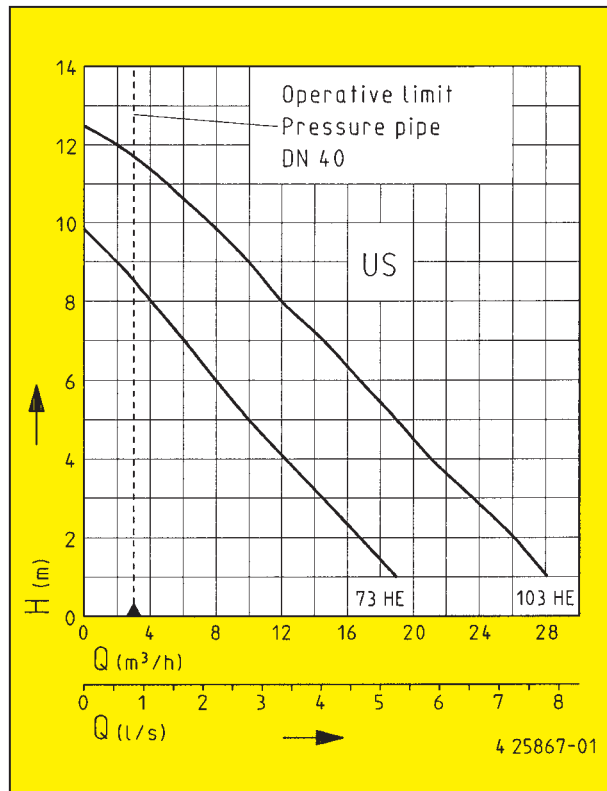
In connection with the drain master Hebefix 100 H pumps for sewage water up to 176° F (80° C) can be used.

Pumps must not be used for pumping sewage from domestic toilets and urinals.



US 73 HES

The minimum flow velocity in the pressure piping must be 0,7 m/s according to EN 12056. This data is represented in the performance curve as a limit of application.



- ▶ Safe to run dry
- ▶ 30 mm free passage
- ▶ Hot water up to 194 °F (90°C)
- ▶ Controllable oil chamber
- ▶ SiC mechanical seal independent of rotation direction
- ▶ Moisture sealed cable inlet



We reserve the right to change specifications without notice. Pump performance is subject to ISO 9906 tolerances.

Submersible drainage pumps

Type	Max. height x width	Discharge branch	Free passage	Cable quality HO7RN-F-	Cable length	Weight	Code No.
US 73 HE (without level control)	380 x 210 mm	1½"	30 m	3G1,0	10 m	12,5 kg	09267
US 73 HES (with built-in level control)	380 x 330 mm	1½"	30 m	3G1,0	10 m	12,5 kg	09264
US 103 HE (without level control)	410 x 210 mm	1½"	30 m	3G1,0	10 m	14,0 kg	09307
US 103 HES (with built-in level control)	410 x 330 mm	1½"	30 m	3G1,0	10 m	14,0 kg	09308

Performance

Type	Delivery head H [m]	1	2	3	4	5	6	7	8	9	10	12
US 73 HE and HES	Flow rate Q [m³/h]	19	17	15	12	10	8	6	4	2		
US 103 HE and HES		28	26	23	21	19	17	15	12	10	8	2

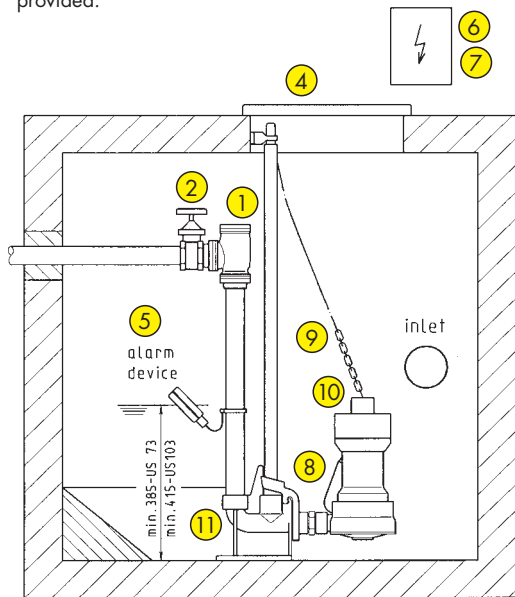
Electrical data

Type	Type of current	Voltage Volt	Motor rating kW P ₁	Motor rating kW P ₂	RPM min ⁻¹	F.L.C. Amp.	Motorprotection	Plug
US 73 HE and HES	1-phase	1N~230	0,83	0,50	2510	3,9	incorporated	safety-
US 103 HE and HES	1-phase	1N~230	1,37	0,98	2700	6,0	incorporated	safety-

Single pump installation with GR 40

US 73+103 sump **with GR 40** min. 40 x 65 cm
 US 73+103 sump **without GR** min. 40 x 40 cm (without illustration)

When using a cover plate a ventilation facility must be provided.

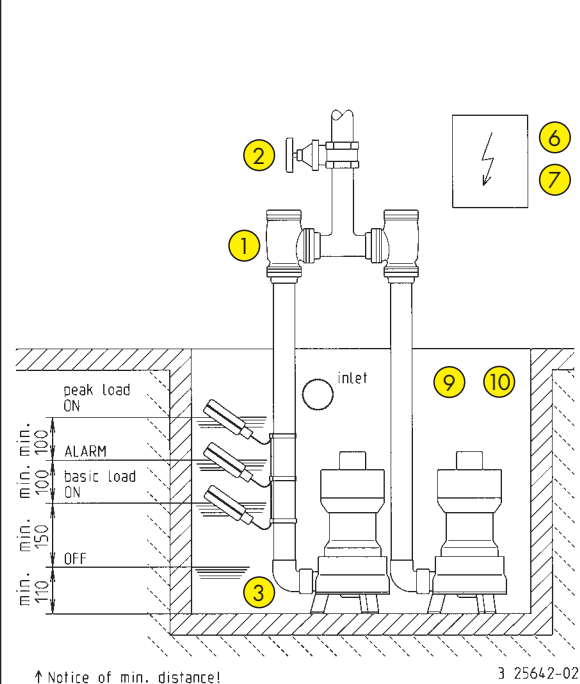


In case of installation beneath the backpressure level the pressure tube must be taken in a loop over the local backup level acc. to EN 12056. Besides, it must be secured with a EN 12050-4 proofed swing-type check valve. Additionally we recommend an alarm system.

Duplex pump installation

US 73+103 sump **without GR** min. 40 x 80 cm
 US 73+103 sump **with GR 40** min. 65 x 80 cm (without illustration)

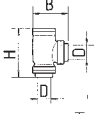

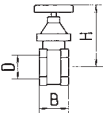


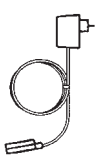
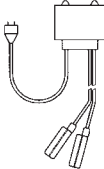

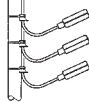

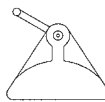


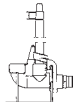
Suspend control unit in a dry room



↑ Notice of min. distance!

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Accessories

				Code-No.	US 73 HE	US 73 HES	US 103 HE	US 103 HES
	1 Elbow ball check valve 1½" (DN 40), PN 6 EN 12050-4	H	B	D	22442	●	●	●
		170	125	1½"				
	Swing type check valve 1½" (DN 40), for hot water	H	B	D	28825	●	●	●
		80	85	1½"				
	2 Stop valve 1½" (DN 40), PN 16	H	L	D	11837	●	●	●
		125	max.60	1½"				
	3 Elbow 1½"				17894	●	●	●
	4 Cover plate* c/w frame, seal and pipe conduct LW 420 Blind plate* c/w frame and seal LW 420				01256 00322	●	●	●
	5 Alarm system with submersible ball contact switch with 3 m cable, separate, mainsdependent, with potential free contact				16723		●	●
	Alarm system ditto. with 9,5 m cable				24434		●	●
	Alarm system for washing machines AW 3 with submersible ball contact switch with 3 m cable, separate, mainsdependent				25090	●	●	●
	Alarm system for washing machines AW 10 ditto. with 9,5 m cable				25091	●	●	●
	6 Separate level controls for single unit NE 1AH (1-phase) with sub. ball contact switch 3,0 m and alarm system NE 2AH (1-phase) with sub. ball contact switch 9,5 m and alarm system Counterweight (1 piece)				24766 24767 17541	●	●	●
	Control units for duplex unit BD 00E (1-phase)				00482	●	●	●
	Set of submersible ball contact switches BH, 9,5 m cable and bracket				24768	●	●	●
	Set of submersible ball contact switches BHmG, 9,5 m cable and counterweight				24769	●	●	●
	7 Rechargeable battery for off the line operation of the alarm system				07562	●	●	●
	8 Special float for low switching points Switching points: US 73 ON/OFF US 103 ON/OFF without GR 155/105 mm 185/135 mm with GR 180/130 mm 210/160 mm				17424		●	●
	9 Chain with rings DIN 766, 2,5 m, 320 kg Chain Niro with 5 rings, 1 shackle, DIN 766, 2,5 m, 200 kg				19189 23986	●	●	●
	10 Shackle A 0,6				13402	●	●	●
	11 Guide rail system GR 40				25592	●	●	●

* only for single units

Technical data

Pump

Vertical, single stage, submersible, with free inlet, volute casing with 1½" female horizontal pressure branch (female thread), vortex impeller, 30 mm free passage

Bearings

Common shaft for pump and motor mounted in ball bearings, by grease filled for life

Seal

Silicon carbide mechanical seal, oil chamber and double shaft seal towards the motor section, safe to run dry

Motor

Submersible, without oil, type of enclosure IP 68, insulation class F, winding thermostat protects the motor from overload, starting via plug or automatic circuit, continuous operation S1 submerged motor

Material

Volute casing in GG grey cast iron, power supply through rubber insulated flexible cable for application in hot water, terminal board lid, vortex impeller, wear plate and pump base of GFK, motor casing and shaft from stainless steel

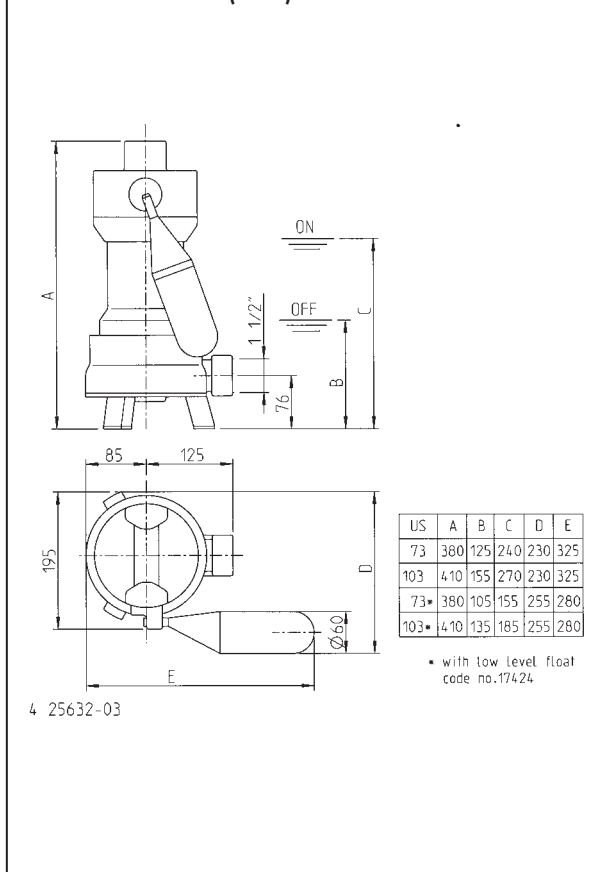
Installation

Pump can be installed free standing or in connection with guide rail system GR 40

Scope of supply

Pump acc. to EN 12050 ready for connection with cable and safety-plug

Dimensions (mm) US 73 + 103 HES



Dimensions (mm) US 73 + 103 HES with GR 40

